REMARKS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the Office Action mailed October 25, 2004.

Double Patenting Rejections

Applicants traverse the provisional statutory double patenting rejection. Statutory double patenting requires complete identity of the claims. (MPEP 804). Pending claim 1 is *not* directed to subject matter identical to claim 1of U.S. Patent Application Serial No. 09/872,970. In particular, pending claim 1 of U.S. Patent Application Serial No. 09/872,970 recites "an agent connected to the host, the agent having volatile memory for storing *a first copy* of a table . . ." Pending claim 1 lacks a corresponding recitation.

Applicants submit herewith Terminal Disclaimers to obviate the double patenting rejections issued in the Action.

Rejections Under 35 U.S.C. §103

Claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,260,120 to Blumenau (hereinafter, "Blumenau"). Applicant respectfully traverses these rejections.

Independent **claim** 1 includes a limitation requiring "an agent coupled to the host, the agent having volatile memory for storing a first table, the table having entries to map the virtual storage segments to the storage

locations." The Action asserts that Blumenau discloses this limitation, and cites Fig. 30 and col. 30, lines 53-55 and col. 32 lines 43-55 to support the assertion. Applicants disagree. A close inspection of Blumenau reveals that Fig. 30 is a GUI display that maps a relationship between logical storage volumes on the storage subsystem and the volumes addressed by the host. Fig. 30 neither discloses nor suggests a table having entries to map virtual disk positions to locations on storage devices, as recited in claim 1.

Col. 30, lines 30-55 reads as follows:

> In this example, the GUI display screen includes, on the left, a list 346 in outline form of storage subsystem components down to a set of logical volumes for one virtual port, and on the right, a list 347 in outline form of host components down to a set of LUNs as addressed from one host controller port.

Col. 32, lines 45-45 reads as follows:

> A primary copy of the configuration information for the volumes accessible to a host is kept in the storage subsystem and on the host.

Contrary to the assertion in the action, nothing in the text discloses or suggests a table having entries to map virtual disk positions to locations on storage devices, as recited in claim 1.

Claim 1 further recites a limitation requiring "a controller coupled to the agent, the controller having non-volatile memory for storing a second table, the controller intermittently causing contents of the first table to be replaced by contents of the second table." The Action asserts that Blumenau discloses this limitation, and cites Figs. 4-5 and col. 14, lines 27-31 and col. 25 lines 1-7 to support the assertion. Applicants disagree.

The cited text reads as follows:

For example, a volume access table 80 and volume lists 81 are stored in the memory 77. The volume access table specifies a correspondence between hosts and respective lists of volumes accessible to the hosts. A back-up copy of the volume access table and volume list could be stored in one of the storage volumes of the cached storage subsystem.

This assignment information must also be used by the host if the host has an operating system that permits the host to boot from a logical volume in storage linked by the Fibre Channel network to the host, or that permits the operating system of the host to collect information about the logical storage volumes that it can access. In other words, the operating system routine that searches for the storage volumes that are accessible to the host must send Report LUNs commands to only the virtual ports assigned to the host and not to the virtual ports assigned to other hosts.

Nothing in this text discloses or suggests a storage controller that includes a second copy of a table that maps virtual disk positions to locations on a storage device.

Claim 1 further recites a limitation that "whereby during an input/output (I/O) operation, the host accesses one of the entries in the first table to determine one of the storage locations." The Action asserts that Blumenau discloses this limitation, and cites col. 32 lines 45-47 to support the assertion. Applicants disagree.

The cited text reads as follows:

> The host should be able to access the primary copy on the storage subsystem if a host's local copy is not available.

Nothing in this text discloses or suggests an arrangement in which a host accesses one of the entries in the table stored on the agent to determine one of the storage device locations, as recited in claim 1.

In sum, contrary to the assertion in the Action, Blumenau neither discloses nor suggests the limitations of independent claim 1. Accordingly, Blumenau cannot render obvious independent claim 1.

Dependent claims 2-6 depend from claim 1 and are allowable by virtue of this dependency, and by virtue of the limitations recited therein.

Independent **claim 7** was rejected on the same basis as independent claim 1. Applicants traverse this rejection, and assert that same arguments asserted with reference to claim 1.

Dependent claims 8-11 depend from claim 7 and are allowable by virtue of this dependency, and by virtue of the limitations recited therein.

Independent claim 12 was rejected on the same basis as independent claim 1. Applicants traverse this rejection, and assert that same arguments asserted with reference to claim 1. Applicant specifically traverses the assertion that Blumenau discloses identifying portions of the virtual storage segment to be effected during the I/O operation. The Action asserts that Blumenau discloses this limitation, and cites Fig. 23 and col. 26, lines 28-34 to support the assertion. Applicants disagree. Fig. 23 is simply a schematic illustration of volume access and mapping information. The cited text reads as follows:

> The volume access and mapping information 269 includes a virtual port host table 281 listing each host having access rights through a virtual switch controlled with the volume access and mapping information, and a virtual port mapping table 282 listing each virtual port accessible through the virtual switch controlled with the volume access and mapping information.

Nothing in this text discloses or suggests identifying portions of the virtual storage segment to be effected during the I/O operation.

In sum, contrary to the assertion in the Action, Blumenau neither discloses nor suggests the limitations of independent claim 12. Accordingly, Blumenau cannot render obvious independent claim 12.

Dependent claims 13-16 depend from claim 12 and are allowable by virtue of this dependency, and by virtue of the limitations recited therein.

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CONCLUSION

Claims 1-16 are in believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Respectfully Submitted,
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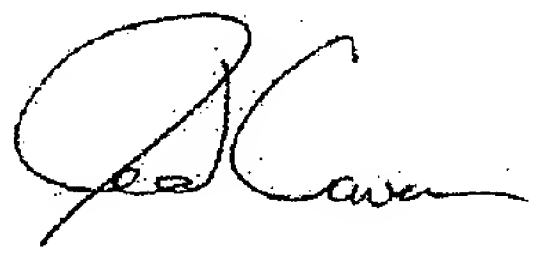

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